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(54) **MODULAR BULKHEAD DISPLAY SYSTEM**

(75) Inventors: **Adrian W. Pynenburg**, Brantford (CA); **Martin S. Cross**, Brantford (CA)

(73) Assignee: **StoreImage Programs Inc.**, Brantford (CA)

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(52) **U.S. Cl.** **40/605**; 40/611; 40/617
(58) **Field of Search** 40/605, 611, 617, 40/649, 651, 729, 730; 52/38, 582.1, 690, 582.2, 578

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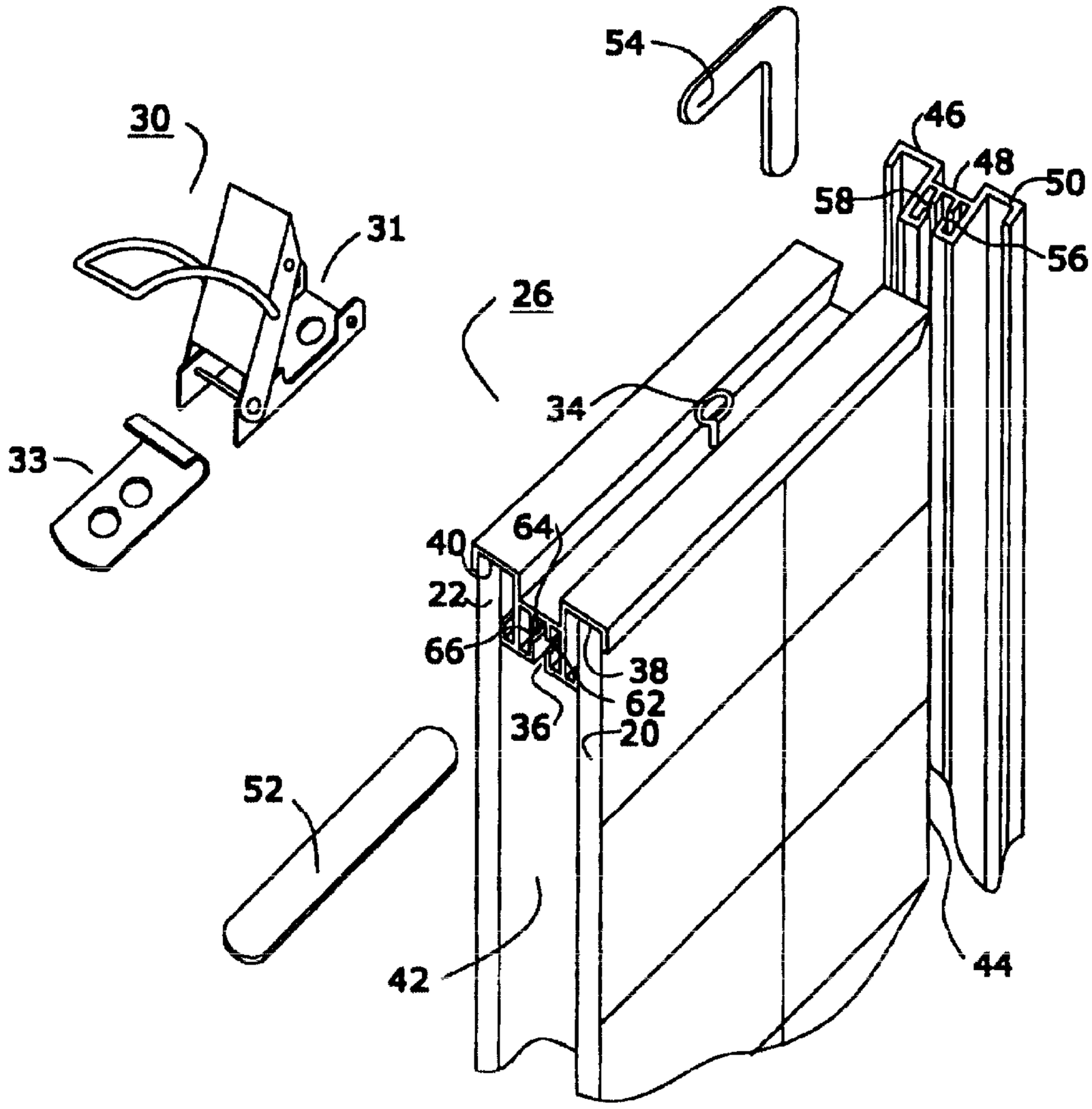
Primary Examiner—Brian K. Green

(57) **ABSTRACT**

A modular bulkhead display system containing a first end panel, a first intermediate panel, and a second end panel, each of which is an aluminum extrusion. Within the aluminum extrusion there is a first external channel, a second external channel, and a center channel. A decor panel is removably disposed within said external channel, and another decor panel may be disposed within the second external channel. End caps are removably connected to the assembly.

19 Claims, 4 Drawing Sheets



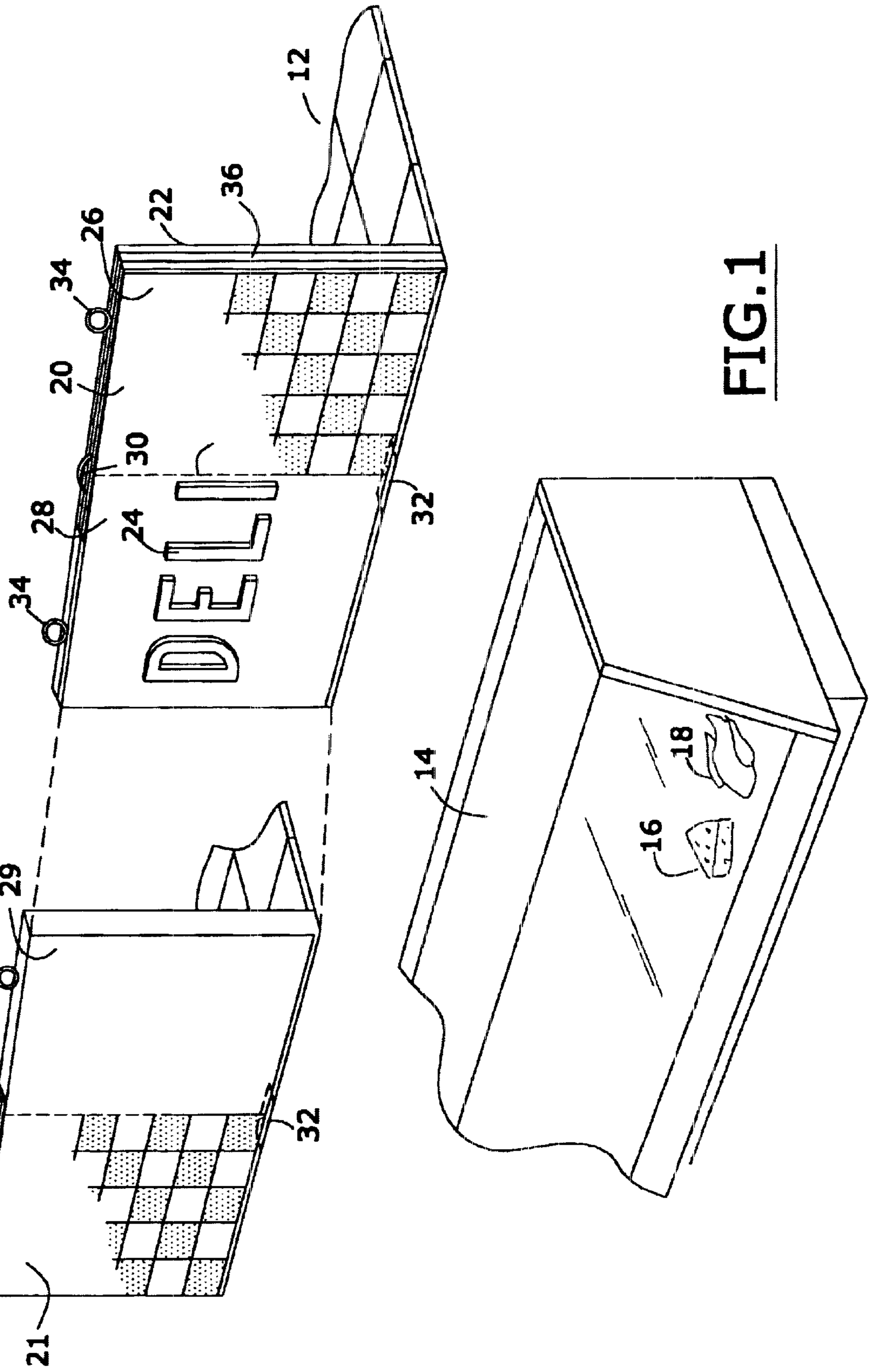


FIG.1

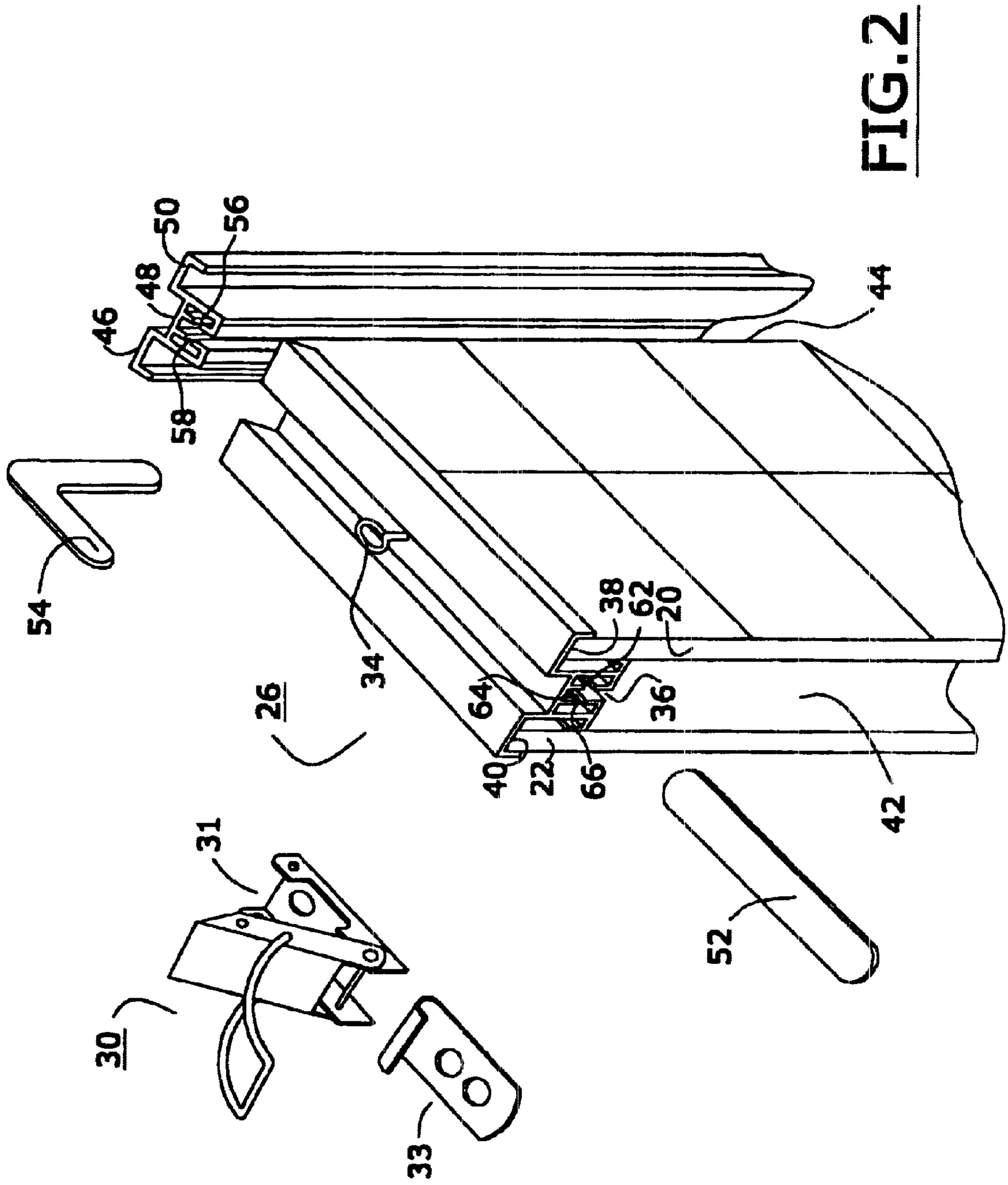


FIG.2

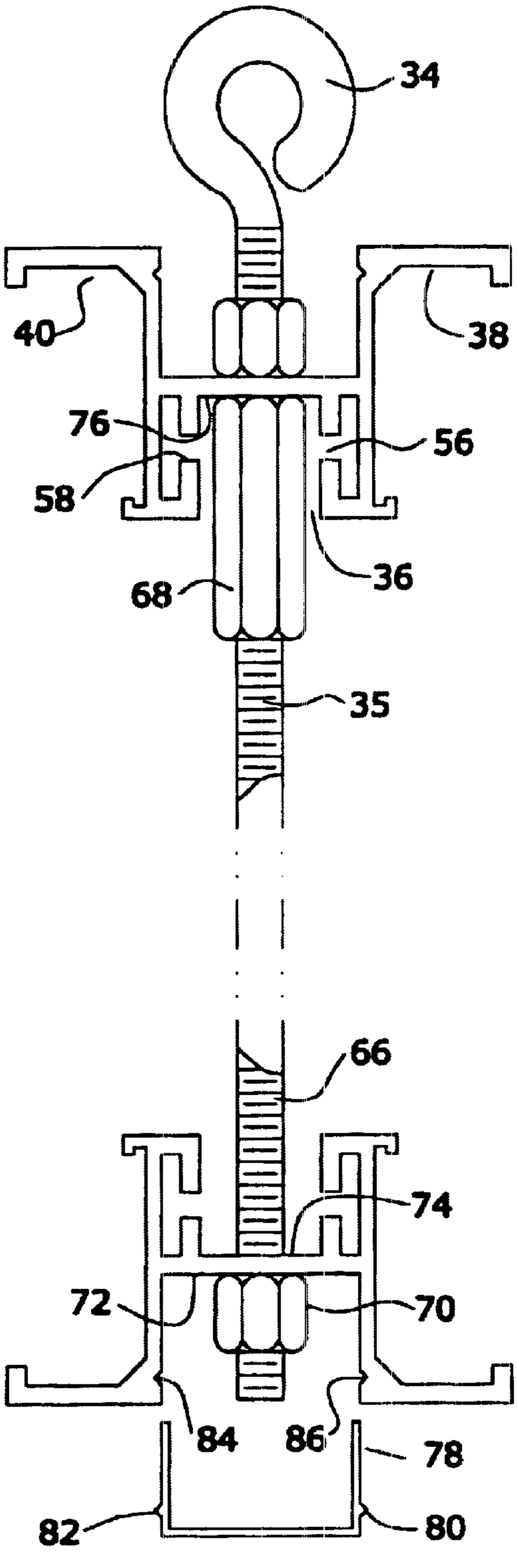


FIG.3

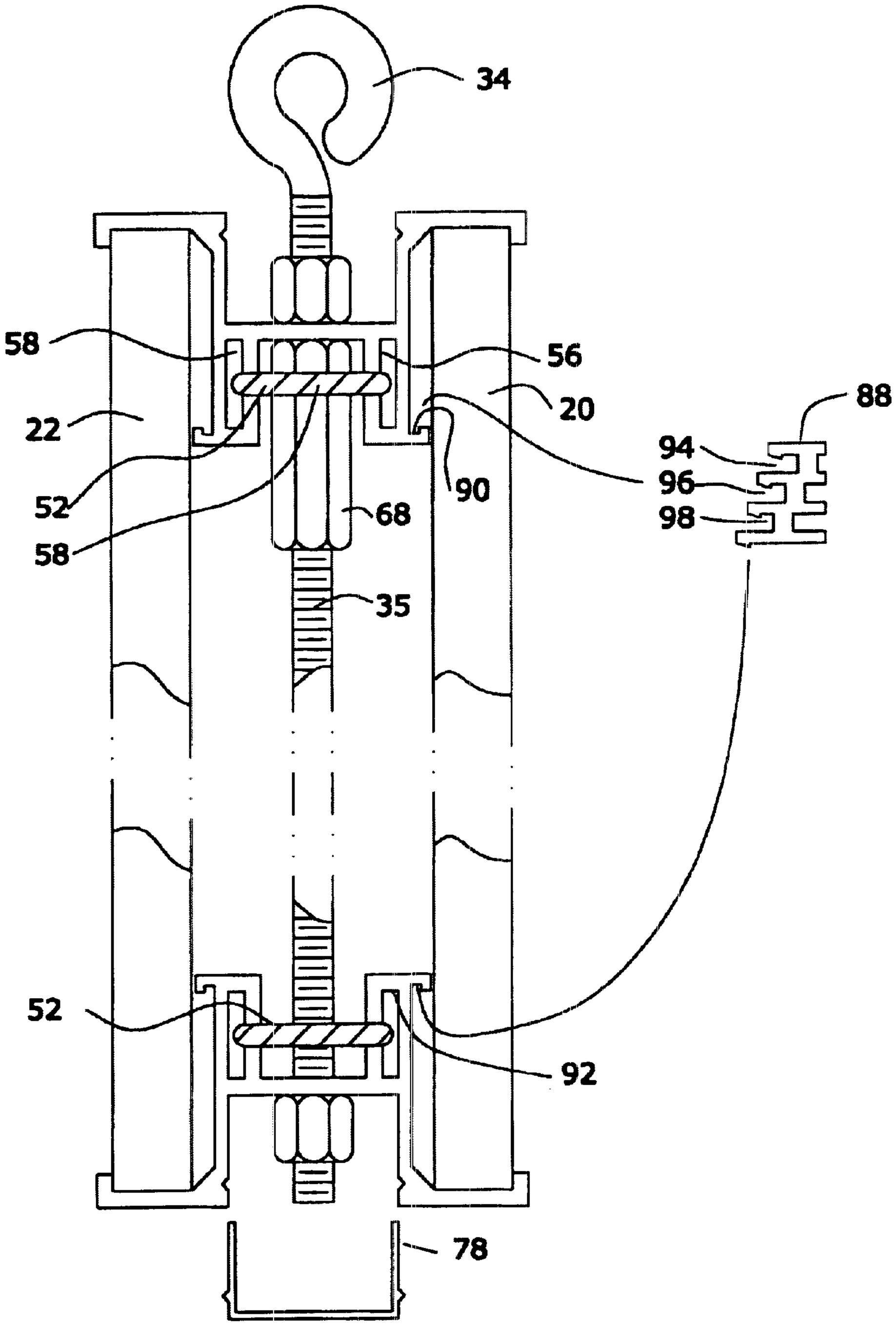


FIG.4

MODULAR BULKHEAD DISPLAY SYSTEM

FIELD OF THE INVENTION

A modular bulkhead display system for use in a retail environment.

BACKGROUND OF THE INVENTION

In retail environments which utilize display cases, such as delicatessens, a bulkhead is often disposed above the display case. The bulkhead often displays one or more advertising messages; and it furnishes a pleasing appearance to the display area.

Most prior art bulkhead assemblies are permanent structures, often made of drywall and studding; and their appearances cannot readily be changed; and they are time consuming and costly to produce. As a display area within a store changes, or as the items being displayed change, it is difficult to modify the prior art bulkhead assemblies to accommodate changing realities.

The prior art bulkhead assemblies are not capable of displaying advertising on both of their sides and, thus, cannot readily be used in the middle of a store.

It is an object of this invention to provide a modular bulkhead display system which is relatively lightweight, can readily be configured to a variety of retail situations, and can easily be moved from one retail location to another.

SUMMARY OF THE INVENTION

In accordance with this invention, there is provided a modular bulkhead display system comprised of a first end panel, a first intermediate panel, a second intermediate panel, means for locking said first end panel to said first intermediate panel, means for locking said second end panel to said second intermediate panel, means for supporting and hanging said first end panel, means for supporting and locking said first intermediate panel, means for supporting and hanging said second intermediate panel, and means for supporting and hanging said second end panel. Each of the panels contains a removable decor panel.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be more fully understood by reference to the following detailed description thereof, when read in conjunction with the attached drawings, wherein like reference numerals refer to like elements, and wherein:

FIG. **1** is a partial perspective view of one preferred embodiment of the modular bulkhead display system of the invention;

FIG. **2** is a partial exploded view of the bulkhead display system of FIG. **1**;

FIG. **3** is a sectional view of the modular bulkhead display system of the invention illustrating the preferred means for supporting and hanging the panels of the bulkhead display system; and

FIG. **4** is a sectional view of the modular bulkhead display system of FIG. **1**.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG. **1** is a partial perspective view of one preferred embodiment of applicant's modular bulkhead display system **10** disposed in a store and mounted above a display case **14**.

The modular display system **10** is comprised of a first decor board **20** disposed on the front of the assembly **10**, and

a second decor board **22** disposed at the back of the assembly **10**. Each of decor boards **20** and **22** may be removed from assembly **10** and replaced with other decor boards. Thus, when assembly **10** is utilized in the middle of a store, it can display graphic indicia (like indicia **24**) in two directions simultaneously. In the application depicted in FIG. **1**, however, there is no need for decor board **22** (inasmuch as it is not visible to the public); and such decor board **22** may be omitted.

Referring again to FIG. **1**, and in the preferred embodiment depicted therein, it will be seen that modular bulkhead assembly is comprised of a first end panel **26** removably connected to a first intermediate panel **28** by means of snap locks **30** and **32**; the point at which these two panels are contiguous is indicated by dotted line **27**. As will be apparent to those skilled in the art, by varying the sizes of the end panels **26** and the intermediate panels **28**, as well as their a, displays on decor boards **20** and/or **22**, one can construct a huge variety of displays of different sizes.

The panels **26** and **28** may be constructed in wide variety of sizes. In one embodiment, these panels have lengths ranging from about 3 to about 6 feet and, preferably, from about 4 to about 6 feet. The panels generally will have a height of from about 2 to about 8 feet.

The panels **26** and **28** are comprised of extruded metal, such as extruded aluminum. Consequently, they are relatively lightweight, ranging from about 5 to about 15 pounds per panel.

Most of the systems **10** will utilize a left end panel **24**, a right end panel **26**, and at least two intermediate panels **28**, **29**. It is preferred to utilize from about 2 to about 20 such intermediate panels **28**, **29**, each removably connected to each other by means of snap locks **30** and **32**.

In the preferred embodiment depicted in FIG. **1**, each of the decor boards **22** and **22** are disposed within an exterior channel formed in the panels (not shown in FIG. **1**). Each of the panels preferably contains a hook **34** for securing the panel to a ceiling, and the hook is part of a hook/support assembly (not shown in FIG. **1**) which is disposed within a central channel **36** formed in the panels.

FIG. **2** is an exploded view of the panel **26** of FIG. **1**. Referring to FIG. **2**, it will be seen that panel **26** is comprised of a first external channel **38** (in which decor board **20** is disposed), a second external channel **40** (in which decor board **22** is disposed), and an intermediate channel **36**. The same channel appears at both end **42** and end **44** of the uncapped channel **36**. What makes panel **26** an end panel is that the channels **36**, **38**, and **40** are capped at the end **44** by mitered cap assembly **46**/**48**/**50**. Without such structure the panel **26** illustrated in FIG. **2** would be an intermediate channel capable of receiving connector spline **52** at both of its ends **42** and **44**.

In order to connect the uncapped panel **26** to the mitered caps **46**, **48**, and **50**, a pair of corner brackets **54** is inserted into slots **56** and **58** and into corresponding slots appearing at end **44**. These corresponding slots are similar in structure to the slots **60** and **62** appearing at end **42**.

When two or more intermediate panels are to be joined, they are joined by means of both lock **30** and connector spline **52**. One portion of lock **30**, snap lock **31**, is connected to one of the panels, the other portion of lock **30**, clasp **33**, is connected to the other of the panels, and the interaction of these two parts removably locks the two panels together. As is illustrated in FIG. **1**, it is preferred to use both a top locking assembly **30** and a bottom locking assembly **32** to removably connected two adjacent panels.

Referring again to FIG. **2**, the connector spline **52** slides into adjacent slots **64** and, when so engaged, helps support adjacent panels. The connector spline **52** is so configured that it is retained by friction within slot **64**.

FIG. **3** is a sectional view of a portion of the assembly **10** of FIG. **1**. As will be seen more clearly in FIG. **3**, the first external channel **38** is adapted to receive decor board **20** (not shown), the second external channel **40** is adapted to receive decor board **22** (not shown), and the support/hanging assembly **35** is disposed within intermediate (center) channel **36**.

The hook assembly **35** is comprised of hook **34** connected to support **66**. A threaded coupling **68** receives and engages with both hook assembly **34** and threaded rod **35**. Threaded rod **35** is captured by nut **70** at end **72** of the panel. As will be apparent, as the threaded rod **35** is turned clockwise or counterclockwise, the amount of force (and support) provided to the surfaces **74** and **76** of the panel can be varied.

As will be seen by reference to FIG. **2**, slots **56** and **58** are adapted to receive corner brackets **54**, which can be used to attach mitered caps **46**, **48**, and **50** to the panel to convert an intermediate panel into an end panel. In the preferred embodiment depicted in FIG. **2**, mitered caps **46**, **48** and **50** comprise one integral assembly.

A cover cap **78** may be friction fit into center channel **36** to conceal the support assembly **34**/**35**/**70**. Cover cap **78** may be made from plastic such as, e.g., flexible polyvinyl chloride. In the embodiment depicted, it contains two nubs adapted to engage with nibs **84** and **86**.

FIG. **4** is a sectional view, similar to that of FIG. **3**, in which the connector splines **52** are shown in sectional view. The connector splines **52** are preferably securely friction fit within slot **51** and provide additional support and engagement between adjacent panels.

An panel thickness adaptor **88** may be connected at point **90** and/or point **92** to adjust for the use of panels **20** and/or **22** which are not substantially the same thickness as the external channels **38** and **40**. The panel thickness adaptor **88** may be used by friction fitting it into place at points **90** and/or **92** using either slot **94**, **96**, and/or **98**. As will be apparent, depending upon which such slot is used, the extent to which the adaptor **88** compensates for a thin decor panel **20** or **22** can be varied.

It is to be understood that the aforementioned description is illustrative only and that changes can be made in the apparatus, in the ingredients and their proportions, and in the sequence of combinations and process steps, as well as in other aspects of the invention discussed herein, without departing from the scope of the invention as defined in the following claims.

We claim:

1. A modular bulkhead display system comprised of a first end panel, a first intermediate panel, and a second end panel, a first locking mechanism for removably connecting said first end panel to said first intermediate panel said first locking mechanism including a snap lock on one of the first panels which interacts with a clasp on the other of the first panels to removably secure the first end panel to the first intermediate panel, means for supporting and hanging said first end panel, means for supporting and hanging said first intermediate panel, and means for supporting and hanging said second end panel, wherein:

(a) each of said first end panel, said second end panel, said first intermediate panel, is comprised of an aluminum extrusion comprising a first external channel, a second external channel, and a center channel, wherein:

1. a first decor panel is removably disposed within said first external channel,
2. said first end panel is comprised of a proximal end and a distal end, wherein a mitered cap is removably connected to said proximal end of said first end panel,
3. said second end panel is comprised of a proximal end and a distal end, wherein a mitered cap is removably connected to said proximal end of said second end panel,

4. each of said first end panel, said second end panel, and said first intermediate panel weighs from about 5 to about 15 pounds.

2. The modular bulkhead display system as recited in claim **1**, wherein disposed within said center channel is a first longitudinally-extending slot and a second longitudinally-extending slot.

3. The modular bulkhead display system as recited in claim **1**, wherein said modular bulkhead system is comprised of a second intermediate panel.

4. The modular bulkhead display system as recited in claim **1**, wherein a second decor panel is removably disposed within said second external channel.

5. The modular bulkhead display system as recited in claim **1**, wherein said first end panel is removably connected to said first intermediate panel by means of a first connector spline.

6. The modular bulkhead display system as recited in claim **5**, wherein said first end panel is removably connected to said first intermediate panel by means of a second connector spline.

7. The modular bulkhead display system as recited in claim **1**, wherein said modular bulkhead system is comprised of said first end panel, said second end panel, and from about 2 to about 20 intermediate panels.

8. The modular bulkhead display system as recited in claim **1**, wherein said means for supporting and hanging said first end panel comprises a hook.

9. The modular bulkhead display system as recited in claim **8**, wherein said means for hanging and supporting said first end panel comprises a threaded coupling connected to said hook.

10. The modular bulkhead display system as recited in claim **9**, wherein said means for hanging and supporting said first end panel comprises a threaded rod connected to said threaded coupling.

11. The modular bulkhead display system as recited in claim **1**, wherein said mitered cap are removably connected to said proximal end of said first end panel by means of a first corner bracket and a second corner bracket.

12. The modular bulkhead display system as recited in claim **11**, wherein said mitered cap are removably connected to said proximal end of said second end panel by means of a third corner bracket and a fourth corner bracket.

13. The modular bulkhead display system as recited in claim **1**, wherein said system further comprises a cover cap removably connected to said center channel of said aluminum extrusion.

14. The modular bulkhead display system as recited in claim **13**, wherein said cover cap is comprised of flexible plastic material.

15. The modular bulkhead display system as recited in claim **1**, wherein

said lock is connected to a first panel.

16. The modular bulkhead display system as recited in claim **1**, wherein

said clasp is connected to a second panel.

17. The modular bulkhead display system as recited in claim **16**, wherein

said lock pivotally attaches to said clasp.

18. The modular bulkhead display system as recited in claim **17**, wherein

said lock and said clasp are reversibly locked in a closed position.

19. The modular bulkhead display system as recited in claim **1**, further comprised of a second locking mechanism.

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